No. 7800020

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Pfister Hybrid Corn Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF seventeen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CORN

'LP1 NR Ht'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 29th day of January in the year of our Lord one thousand nine hundred and eighty.

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

FORM APPROVED
OMB NO. 40-R3822

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAME	FOR OFFICIAL USE ONLY
LP1 NR Ht	LP1 NR Ht	PV NUMBER 7800020
2. KIND NAME: Corn	3. GENUS AND SPECIES NAME: Zea Mays	FILING DATE 1-9-78 / TIME 10:00 A.M. P.M.
4. FAMILY NAME (BOTANICAL): Gramineae	5. DATE OF DETERMINATION: July 1976	FEE RECEIVED $ 250.00 $ 250.00 250.00 / DATE 1-9-78 1-9-78 12-10-79
6. NAME OF APPLICANT(S): Pfister Hybrid Corn Company	7. ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*): P.O. Box 187 El Paso, Illinois 61738	8. TELEPHONE AREA CODE AND NUMBER: 309/527-6000
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (*Corporation, partnership, association, etc.*) Corporation	10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION: Delaware	11. DATE OF INCORPORATION: June 19, 1944

12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS:
Mr. Chas. W. Rummler/Rummler and Snow/7 South Dearborn Street/ Chicago, Illinois 60603

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- [X] 13A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
- [X] 13B. Exhibit B, Novelty Statement.
- [X] 13C. Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*
- [X] 13D. Exhibit D, Additional Description of the Variety.

RFS

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a). (If "Yes," answer 14B and 14C below.)* [ ] YES [X] NO

14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? [ ] YES [X] NO

14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED? [ ] FOUNDATION [ ] REGISTERED [ ] CERTIFIED

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? [X] YES [ ] NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

3-24-78
(DATE)

Pfister Hybrid Corn Company
(SIGNATURE OF APPLICANT)

By: [signature] 1
(SIGNATURE OF APPLICANT)

FORM GR-470 (1-78)

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and $500 fee ($250 filing fee and $250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.

13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.

13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.

13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.

14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)

15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

7800020

EXHIBIT A

Origin and Breeding History of the Variety

1. Origin:

LP1 NR Ht originated in Illinois, U.S.A., as a breeding developement of Pfister Hybrid Corn Company. Work was performed by Pfister Research Agronomist James Bryant, under direction of Company Research Director. Work is fully documented in permanent records of Company.

2. Breeding History:

In the developement of LP1 Cms Ht, LP1 NR Ht (a specific A632 selection) was found to be a non restoring maintainer for LP1 Cms Ht.

3. Inbred Variety Description:

LP1 NR Ht is a phenotypically uniform inbred. It is genetically homozygous with fixed characteristics typical of A632.

4. Disease Resistance Traits:

LP1 NR Ht possesses the homozygous dominate resistant gene, Ht, for Northern Corn Leaf Blight, incited by Helminthosporium Turcicum.

7800020

Exhibit 13A

Origin and Breeding History of LP1 NR Ht_1 a Corn Dent Inbred

The following is a chronological history of the breeding of the line LP1 NR Ht_1. Work on this development was conducted by Pfister Hybrid Corn Company, El Paso, Illinois, 61738, in two locations: El Paso, Illinois and Kaunakakai, Molokai, Hawaii.

Summer 1975 El Paso: Pollen parent $182Ht_1$-Blk-1 was crossed onto 689msx118)181-6BC ear parent selecting for sterility and other desirable agronomic characteristics. $182Ht_1$-Blk-1 is a private selection related to A632 with Helminthosporium turcicum resistance. Fifty plant number selfs and crosses were made. (Nursery Book - pollen parent rows 2101-2105, Page 29)

Winter 1975-76 1st planting Hawaii: Pollen parent $182Ht_1$-Blk-1)PN@42 was crossed onto 689msx118)181-6BC)$182Ht_1$-Blk-1 ear parent selecting for sterility and other desirable agronomic characteristics. (Nursery Book - Row 1217, Page 41)

Winter 1975-76 2nd planting Hawaii: Pollen parent $182Ht_1$-Blk-1)Pn@42-@ was crossed onto 689msx118)181-6BC)$182Ht_1$-Blk-1)BC ear parent selecting for sterility and other desirable agronomic characteristics. (Nursery Book - Row 1338, Page 45)

Summer 1976 El Paso: Pollen parent $182Ht_1$-Blk-1)Pn@42-@ was crossed onto 689msx118)181-6BC)$182Ht_1$-Blk-1)BC ear parent selecting for sterility and other desirable agronomic characteristics. (Due to poor location in winter nursery, observations could not be made and this selection was not worked. We dropped back to previous generation stocks for pollen parent.) (Nursery Book - Row 9704, Page 328)

Winter 1976-77 Hawaii: Pollen parent $182Ht_1$-Blk-1)PN@42-@^{2} was crossed onto 689msx118)181-6BC)$182Ht_1$-Blk-1)2BC ear parent selecting for sterility and other desirable agronomic characteristics. (All 34 sets of sterile checks were 100% sterile. Hybrid test crosses were made to check yield potential.) (Nursery Book - Rows 136, 138, 140, etc to 202, Pages 5 to 7)

Summer 1977 El Paso: Pollen parent $182Ht_1$-Blk-1)PN@42-@^{3} was crossed onto 689msx118)181-6BC)$182Ht_1$-Blk-1)3BC ear parent selecting for sterility and other desirable agronomic characteristics. (Nursery Book - Rows 6752, 6754, 6756, etc to 6822, Pages 57 to 59)

Winter 1977-78 Hawaii: Pollen parent $182Ht_1$-Blk-1-PN942-$\oplus^4$ was crossed onto 689msx118)181-6BC)$182Ht_1$-Blk-1)4BC ear parent selecting for sterility and other desirable agronomic characteristics. At this stage, both the male sterile ear parent and the pollen parent maintainer were crossed onto yield tester lines to check yield potential and other agronomic traits. LP1 NR Ht_1 seed stocks were increased in foundation fields during the winter season. (Nursery Book - Rows 1589, 1591, 1593, etc. to 1607, Pages 54-55)

Summer 1978 El Paso: Pollen parent $182Ht_1$-Blk-1-PN942-$\oplus^5$ (LP1 NR Ht_1) was crossed onto 689msx118)181-6BC)$182Ht_1$-Blk-1)5BC (LP1 Cms Ht_1)$_{Rfs}$ ear parent. Selection for sterility and favorable agronomic traits will be continued in future generations. LP1 NR $Ht_1$$_{Rfs}$ seed stocks were increased in foundation fields during 1978. (Nursery Book - Rows 11103, 11105, 11107, etc. to 11121, Page 94)

In summary, a non-restoring maintainer was selected from $182Ht_1$-Blk-1 for LP1 Cms $Ht_1$$_{Rfs}$ In each generation of work a paired row - plant number self-cross scheme was used to determine the favorable selections. Other desirable agronomic traits were selected in the process.

Attached:

1. Facsimile reproduction of the Nursery Book pages mentioned above.

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Application No. 7800020

Supplement to Exhibit 13A
LP1 NR Ht~ Dent Corn Inbred
NS January 3, 1979

The LP1 NR Ht~ dent corn inbred is stable genetically. No variants have been noted in the line since its first use in test crosses in 1976-77 and subsequent pilot and commercial production. Additional evidence of its uniformity is the six (6) generations of selfing after selection.

PV No. 7800020
Corn
'LP1 NR Ht'

Exhibit B (Revised)

'LP1 NR Ht' is most similar to 'A632' and 'LP1 Cms Ht'. 'LP1 NR Ht' is resistant to Helminthosporium turcicum, whereas 'A632' is susceptible. 'LP1 Cms Ht' is 100% male sterile (non-viable pollen) when maintained with 'LP1 NR Ht'. 'LP1 Cms Ht' is restored totally or partially (viable pollen) when maintained by other 'A632' selection.

Signature and Date Donald E Pfister 2-16-79
Applicant

LP1 NR Ht RFS

FORM APPROVED. OMB NO. 40-R3712

FORM GR-470-28
(2-15-74)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C
(Corn)

OBJECTIVE DESCRIPTION OF VARIETY

CORN *(ZEA MAYS)*

NAME OF APPLICANT(S)
PFISTER HYBRID CORN COMPANY

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
P. O. Box 187
El Paso, Illinois 61738

FOR OFFICIAL USE ONLY
PVPO NUMBER
7800020
VARIETY NAME OR TEMPORARY DESIGNATION
LP1 NR HT

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. TYPE:

[2] 1 = SWEET 2 = DENT 3 = FLINT 4 = FLOUR 5 = POP 6 = ORNAMENTAL

2. REGION WHERE BEST ADAPTED IN THE U.S.A.:

[2] 1 = NORTHWEST 2 = NORTHCENTRAL 3 = NORTHEAST 4 = SOUTHEAST
5 = SOUTHCENTRAL 6 = SOUTHWEST 7 = MOST REGIONS

3. MATURITY (In Region of Best Adaptability):

(Under "omments" (pg. 3) state how heat units were calculated)

[6][9] DAYS FROM EMERGENCE TO 50% OF PLANTS IN SILK — [1][5][2][0] HEAT UNITS

[N][A] DAYS FROM 50% SILK TO OPTIMUM EDIBLE QUALITY — [-][-][-][-] HEAT UNITS

[5][6] DAYS FROM 50% SILK TO HARVEST AT 25% KERNEL MOISTURE — [1][1][7][0] HEAT UNITS

4. PLANT:

[2][1][5] CM. HEIGHT (To tassel tip)

[1][0][8] CM. EAR HEIGHT (To base of top ear)

[1][2] CM. LENGTH OF TOP EAR INTERNODE

Number of Tillers:

[2] 1 = NONE 2 = 1–2 3 = 2–3 4 = > 3

Number of Ears Per Stalk:

[2] 1 = SINGLE 2 = SLIGHT TWO-EAR TENDENCY
3 = STRONG TWO-EAR TENDENCY 4 = THREE-EAR TENDENCY

Cytoplasm Type:

[1] 1 = NORMAL 2 = "T" 3 = "S" 4 = "C" 5 = OTHER (Specify) _____

5. LEAF (Field Corn Inbred Examples Given):

Color:

[3] 1 = LIGHT GREEN (HY) 2 = MEDIUM GREEN (WF9) 3 = DARK GREEN (B14) 4 = VERY DARK GREEN (K166)

Angle from Stalk (Upper half):

[2] 1 = < 30° 2 = 30–60° 3 = > 60°

Sheath Pubscence:

[1] 1 = LIGHT (W22) 2 = MEDIUM (WF9)
3 = HEAVY (OH26)

Marginal Waves:

[2] 1 = NONE (HY) 2 = FEW (WF9) 3 = MANY (OH7L)

Longitudinal Creases:

[1] 1 = ABSENT (OH51) 2 = FEW (OH56A)
3 = MANY (PA11)

Width:

[1][0] CM. WIDEST POINT OF EAR NODE LEAF

Length:

[0][7][6] CM. EAR NODE LEAF

[1][4] NUMBER OF LEAVES PER MATURE PLANT

7

6. TASSEL:

[1][0] NUMBER OF LATERAL BRANCHES

Branch Angle from Central Spike:

[1] 1 = < 30° 2 = 30–40° 3 = > 45°

Penduncle Length:

[0][5] CM. FROM TOP LEAF TO BASAL BRANCHES

Pollen Shed:

[2] 1 = LIGHT (WF9) 2 = MEDIUM 3 = HEAVY(KY21)

[2] **Anther Color:** } 1 = YELLOW 2 = PINK 3 = RED 4 = PURPLE 5 = GREEN
[6] **Glume Color:** } 6 = OTHER (Specify) Initially green; later reddish

Pollen Restoration for Cytoplasms (o = Not Tested, 1 = Partial, 2 = Good) 3 = Non-restoring

[0] "T" [0] "S" [3] "C" [ ] OTHER (Specify Cytoplasm and degrees of restoration) _____

7. EAR (Husked Ear Data Except When Stated Otherwise):

[1][4] CM LENGTH [4][0] MM. MID-POINT DIAMETER [1][2][5] GM. WEIGHT

Kernel Rows:

[2] 1 = INDISTINCT 2 = DISTINCT [1][4] NUMBER

[1] 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = SPIRAL

Silk Color (Exposed at Silking Stage):

[1] 1 = GREEN 2 = PINK 3 = SALMON 4 = RED

Husk Color:

[2] FRESH } 1 = LIGHT GREEN 2 = DARK GREEN 3 = PINK
[6] DRY } 4 = RED 5 = PURPLE 6 = BUFF

Husk Extention: (Harvest Stage)

[3] 1 = SHORT (Ears Exposed) 2 = MEDIUM (Barely Covering Ear)
3 = LONG (8–10CM Beyond Ear Tip)
4 = VERY LONG (> 10 CM)

Husk Leaf:

[2] 1 = SHORT (< 8 CM) 2 = MEDIUM (8–15 CM) 3 = LONG (> 15 CM)

Shank:

[1][6] CM LONG [8] NO. OF INTERNODES

Position at Dry Husk Stage:

[1] 1 = UPRIGHT 2 = HORIZONTAL 3 = PENDENT

Taper:

[1] 1 = SLIGHT 2 = AVERAGE 3 = EXTREME

Drying Time (Unhusked Ear):

[2] 1 = SLOW 2 = AVERAGE 3 = FAST

8. KERNEL (Dried):

Size (From Ear Mid-Point):

[1][0] MM LONG [0][8] MM. WIDE [0][5] MM. THICK

8

Shape Grade (% Rounds)

[3] 1 = < 20 2 = 20–40 3 = 40–60 4 = 60–80 5 = > 80

8. KERNEL (Dried) :

[1] **Pericarp Color:** 1 = COLORLESS 2 = RED-WHITE 3 = TAN 4 = BRONZE 5 = BROWN 6 = LIGHT RED 7 = CHERRY RED 8 = VARIEGATED (Describe) _____

[1] **Aleurone Color:** 1 = HOMOZYGOUS 2 = SEGREGATING (Describe) _____

[10] 1 = WHITE 2 = PINK 3 = TAN 4 = BROWN 5 = BRONZE 6 = RED 7 = PURPLE 8 = PALE PURPLE 9 = VARIEGATED (Describe) 10 = Yellow

[2] **Endosperm Color:** 1 = WHITE 2 = PALE YELLOW 3 = YELLOW 4 = PINK-ORANGE 5 = WHITE CAP.

Endosperm Type:

[3] 1 = SWEET (su1) 2 = EXTRA SWEET (sh2) 3 = NORMAL STARCH 4 = HIGH AMYLOSE STARCH 5 = WAXY STARCH 6 = HIGH PROTEIN 7 = HIGH LYSINE 8 = OTHER (Specify) _____

[2][6] GM. WEIGHT /100 SEEDS (Unsized Sample)

9. COB:

[2][5] MM. DIAMETER AT MID-POINT

Strength:

[2] 1 = WEAK 2 = STRONG

Color:

[3] 1 = WHITE 2 = PINK 3 = RED 4 = BROWN 5 = VARIEGATED 6 OTHER (Specify) _____

10. DISEASE RESISTANCE (0 = Not Tested, 1 = Susceptible, 2 = Resistant):

[2]	STALK ROT (Diplodia)	[1]	STALK ROT (Fusarium)	[1]	STALK ROT (Gibberella)
[2]	NORTHERN LEAF BLIGHT	[1]	SOUTHERN LEAF BLIGHT (Race-0)	[0]	SMUT (S. reiliana)
[0]	SOUTHERN RUST	[2]	CORN SMUT (Ustilago maydis)	[0]	BACTERIAL WILT E. caratovora (f. sp. chry.
[1]	BACTERIAL LEAF BLIGHT (E. stewartii)	[0]	MAIZE DWARF MOSAIC	[0]	STUNT
[2]	OTHER (Specify) S.C.L.B.-Race T				

11. INSECT RESISTANCT (0 = Not Tested, 1 = Susceptible, 2 = Resistant):

[0]	CORNBORER	[0]	EARWORM	[0]	SAPBEETLE	[0]	APHID
[0]	ROOTWORM (Northern)	[0]	ROOTWORM (Western)				
[0]	ROOTWORM (Southern)	[ ]	OTHER (Specify) _____				

12. VARIETIES MOST CLOSELY RESEMBLING THAT SUBMITTED FOR THE CHARACTERS GIVEN:

CHARACTER	VARIETY	CHARACTER	VARIETY
Maturity	A632	Kernel Type	A632
Plant Type	A632	Quality (Edible)	- - -
Ear Type	A632	Usage	A632

REFERENCES:

U.S. Department Agriculture. Yearbook 1937.

Corn: Culture, Processing, Products. 1970 Avi Publishing Company, Westport, Connecticut. (Numerous (Authors)

Emerson, R.A., G.W. Beadle, and A.C. Fraser. A Summary of Linkage Studies in Maize.Cornell A.E.S., Mem. 180. 1935.

The Mutants of Maize. 1968. Crop Science Society of America. Madison, Wisconsin.

Stringfield, G.H. Maize Inbred Lines of Ohio. Ohio A.E.S. Bul. 831. 1959.

Butler, D.R. 1954 — A System for the Classification of Corn Inbred Lines — PhD. Thesis, Ohio State University.

COMMENTS: Heat Unit Formula = Accumulation of growing degree days (G.D.D.) based on formula: $G.D.D. = \frac{\text{Daily max. temp. } (\leq 86^{\circ}F) + \text{daily min. temp. } (\geq 50^{\circ}F)}{2} - 50^{\circ}F$

Exhibit 13D

Additional Description of the Variety

LP1 NR Ht_2 R/S is a yellow corn inbred. The line is most similar to $182Ht_1$-Blk-1 in plant and ear type. Inbred $182Ht_1$-Blk-1 is a private A632 selection with Helminthosporium turcicum resistance. LP1 NR Ht_2 R/S is 15-20 cm. taller and 1½% higher in moisture than $182Ht_1$-Blk-1. Hybrids with LP1 NR Ht_2 R/S substituted for $182Ht_1$-Blk-1 are taller, later and show more uniformity and late health.

The stalk quality of LP1 NR Ht_2 R/S is slightly better than $182Ht_1$-Blk-1. The line will have 1-2 tillers under normal conditions. Fourteen leaves are normal and are oriented from 30-60 degrees from horizontal. The ear is medium in length and has a long husk extension. The kernels are arranged in 14 straight rows. The kernel is thick, yellow-orange with a pale yellow cap.

LP1 NR Ht_2 R/S is a 100% non-restoring maintainer for LP1 Cms Ht_2 R/S. Other A632 types either completely or partially restore LP1 Cms Ht_2 R/S.

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USDA

United States Department of Agriculture

Research, Education, and Economics
Agricultural Research Service

January 21, 1998

Marian R. Minnifield
Secretary
Plant Variety Protection Office
NAL Building, Room 500
10301 Baltimore Boulevard
Beltsville, Maryland 20705-2351

Subj: Expired PVPO's; disposition of

1. The following expired PVPO's have been transferred to the NPGS. Our records have been changed accordingly.

Serial Number		PVP Number	EXPIRED
107423	01	7900099	01/02/1997
107424	01	7800077	01/02/1997
107425	01	7900062	01/02/1997
107428	01	7900095	01/02/1997
107429	01	7700092	01/02/1997
108309	01	7900116	01/29/1997
108310	01	7900117	01/29/1997
108311	01	7900087	01/29/1997
108312	01	7800080	01/29/1997
108313	01	7800020	01/29/1997
109381	01	7900113	03/27/1997
109382	01	7900030	03/27/1997
109383	01	7900102	03/27/1997
109384	01	7900063	03/11/1997
109386	01	7300068	03/11/1997
109387	01	7900120	02/26/1997
109388	01	7700028	02/26/1997
109389	01	7700112	02/26/1997
109390	01	7900040	03/11/1997
109791	01	7800071	02/26/1997
110210	01	8000058	05/15/1997
110211	01	7800103	05/01/1997
110212	02	8000001	05/01/1997
110213	01	7800001	05/01/1997

ars

Northern Plains Area • National Seed Storage Laboratory
1111 South Mason Street • Ft. Collins, CO 80521-4500
Voice: 970 495-3200 • Fax: 970 221-1427

110214	02	7200105	04/24/0197
110215	01	8000022	04/24/1997
110216	01	7900060	05/01/1997
110217	01	7900084	05/01/1997
110218	01	8000071	05/15/1997
110219	01	7900101	05/01/1997
110220	01	8000043	05/15/1997
110221	01	8000015	05/15/1997
110222	01	7900111	05/15/1997
110223	01	7900110	05/15/1997
110227	01	7900106	05/15/1997
110228	01	7900071	04/24/1997
110229	01	7900100	05/01/1997
110230	01	7900075	05/01/1997
110231	01	7900108	04/24/1997
110236	01	8000053	05/29/1997
110239	01	7900098	05/29/1997
110240	01	7900006	05/29/1997
110263	01	7900042	06/05/1997
110264	01	8000048	06/05/1997
110265	01	8000063	06/05/1997
110266	01	8000012	06/05/1997
110267	01	8000049	06/05/1997
110268	01	7800092	06/05/1997
112329	01	8000045	06/19/1997
112330	01	7900088	07/10/1997
112331	01	8000044	07/10/1997
112332	01	7800079	06/19/1997
112333	01	7900074	06/26/1997
112334	01	8000061	06/19/1997
112335	01	7700016	07/10/1997
112336	01	7700017	07/10/1997
112337	01	7900105	06/26/1997
112338	01	7900089	06/19/1997
112339	01	7900072	06/19/1997
112342	01	7900090	06/26/1997
112343	01	7900064	07/10/1997
112344	01	8000072	06/19/1997
112345	01	8000009	07/31/1997
112346	01	7800099	07/31/1997
112347	01	8000040	07/31/1997
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112350	01	7900080	07/31/1997
112351	01	8000006	07/31/1997

112352	01	8000027	07/31/1997
112353	01	8000024	07/31/1997
112354	01	8000076	07/31/1997
112355	01	8000025	07/31/1997
112356	01	8000062	07/31/1997
112357	01	8000102	07/31/1997
112360	01	8000023	07/31/1997
112361	01	7900078	07/31/1997
112362	01	8000093	07/31/1997
112363	01	8000020	07/31/1997
112364	01	7800019	07/31/1997
112365	01	7900079	07/31/1997
113482	01	8000118	09/11/1997
113483	01	8000114	09/11/1997
113484	01	8000119	09/11/1997
113485	01	8000113	09/11/1997
113486	01	8000086	09/11/1997
113487	01	7900070	09/11/1997
113488	01	8000033	09/11/1997
113489	01	8000034	09/11/1997
113490	01	7900022	09/11/1997
113491	01	8000090	09/11/1997
113492	01	8000105	09/11/1997
113493	01	7900056	09/11/1997
113494	01	7900057	09/11/1997
113495	01	8000096	09/11/1997
113498	01	8000099	09/11/1997
113499	02	7900082	09/11/1997
113500	01	7500083	09/11/1997
113501	01	8000013	09/11/1997
113502	01	7900083	09/11/1997
113503	01	7300090	09/11/1997
114293	01	8000130	10/16/1997
114597	01	7900104	10/16/1997
114598	01	8000077	10/16/1997
114599	01	8000111	10/16/1997
114600	01	8000011	10/16/1997
114601	01	8000134	10/16/1997
169608	01	8100103	07/15/1997

Sincerely,

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